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*To ensure access to high-quality,
patient-centered, cost-effective health
care to Los Angeles County residents
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and through collaboration with
community and university partners.*



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February 04, 2014

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

**AUTHORIZE THE PURCHASE OF CAPITAL ASSET FOR THE
DEPARTMENT OF HEALTH SERVICES' FUJI RADIOLOGY PICTURE
ARCHIVING AND COMMUNICATION SYSTEM CONSOLIDATION
PROJECT
(ALL SUPERVISORIAL DISTRICTS)
(3 VOTES)**

**CIO RECOMMENDATION: APPROVE (X) APPROVE WITH MODIFICATION
()
DISAPPROVE ()**

SUBJECT

Authorize the acquisition of hardware, software, and professional services to replace the end-of-life Fuji Radiology Picture Archiving and Communication System hardware currently being used throughout the Department of Health Services.

IT IS RECOMMENDED THAT THE BOARD:

Authorize the Internal Services Department (ISD), as the County's Purchasing Agent, to proceed with the acquisition of hardware, software, and professional services for the Department of Health Services (DHS) FujiFilm Medical Systems USA, Inc. (Fuji) Radiology Picture Archiving and Communication System (PACS) Consolidation Project (Project) at a total cost of \$3,209,924.

ADOPTED

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

17 February 4, 2014

Sachi A. Hamai
SACHI A. HAMAI
EXECUTIVE OFFICER

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

Approval of this action will provide for the acquisition of hardware, software, and professional services for the DHS Fuji Radiology PACS Project. The Project will centralize and build redundancy of the DHS Fuji Radiology PACS between the LAC+USC Medical Center and Martin Luther King, Jr. Multi-Service Ambulatory Care Center Data Centers, thus eliminating existing points of failure throughout DHS and will support the County's virtualization efforts. The existing end-of-life hardware throughout DHS facilities will no longer be supported and will be replaced by purchase of this capital asset hardware. The Project will support future data growth since the hardware at Data Centers will include sufficient data capacity to meet DHS' current needs and will allow for additional hardware expansion as DHS' needs increase. Professional services will provide required interfaces between Fuji and

Online Real-Time Centralized Health Information Database (ORCHID) while maintaining existing interfaces with other related downstream applications.

DHS Fuji Radiology PACS is used enterprise wide for providing a turnkey comprehensive Radiology solution and has been designated as a standard solution for DHS. PACS supports an estimated one million Radiology procedures annually for radiologists to view new and comparison Radiology studies; provide patient diagnosis while reading the images on-line via a Food and Drug Administration (FDA) compliant diagnostic workstation; use speech recognition technology; and complete a Radiology report. PACS will also be interfaced with the ORCHID.

Implementation of Strategic Plan Goals

The recommended action will support Goal 1, Operational Effectiveness, of the County's Strategic Plan.

FISCAL IMPACT/FINANCING

The total one-time net cost for the hardware, software, and professional services for the installation, configuration, and testing/training, and a one-year, no cost, warranty is \$3,209,924. The combined hardware and software costs are \$2,698,574, and the professional services costs are \$511,350.

The estimated cost in FY 2013-14 is \$1,295,750, which includes the Capital Asset of \$1,100,000 and FY 2014-15 is \$1,914,174, which includes the Capital Asset of \$1,570,176.

Funding is included in the DHS Fiscal Year (FY) 2013-14 Final Budget and will be requested in the DHS FY 2014-15 Status Quo budget submission.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

On October 16, 2001, the Board approved the classification categories for fixed assets and new requirements for major capital assets purchases requiring County departments to obtain Board approval to purchase or finance equipment with a unit cost of \$250,000 or greater prior to submitting their requisition to the County's Purchasing Agent.

The County's Chief Information Officer recommends approval of this purchase and that Office's Analysis is attached (Attachment I).

CONTRACTING PROCESS

This is a commodity purchase under the statutory authority of the County's Purchasing Agent and will be accomplished in accordance with County Purchasing Policies and Procedures established by ISD. This purchase of hardware, software, and professional services is required to replace end-of-life Fuji Radiology PACS components. This hardware upgrade purchase cannot be obtained from any other vendor other than Fuji since Fuji is DHS' Radiology PACS vendor and the only vendor that can provide 24/7 maintenance and support for the entire DHS-wide PACS.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of the recommendation will ensure the purchase of the hardware, software, and associated professional services for the DHS Fuji Radiology PACS Project.

Respectfully submitted,



Mitchell H. Katz, M.D.
Director



RICHARD SANCHEZ
Chief Information Officer

MHK:RS:lr

Enclosures

c: Chief Executive Office
County Counsel
Executive Office, Board of Supervisors
Internal Services Department



RICHARD SANCHEZ
CHIEF INFORMATION OFFICER

Office of the CIO
CIO Analysis

NUMBER:	DATE:
CA 14-01	12/17/2013

SUBJECT: AUTHORIZE THE PURCHASE OF CAPITAL ASSET FOR THE DEPARTMENT OF HEALTH SERVICES' FUJI RADIOLOGY PICTURE ARCHIVING AND COMMUNICATION SYSTEM CONSOLIDATION PROJECT	
RECOMMENDATION: <input checked="" type="checkbox"/> Approve <input type="checkbox"/> Approve with Modification <input type="checkbox"/> Disapprove	
CONTRACT TYPE: <input type="checkbox"/> New Contract <input type="checkbox"/> Sole Source <input type="checkbox"/> Amendment to Contract #: Enter contract #. <input checked="" type="checkbox"/> Other: Purchase Order	
CONTRACT COMPONENTS: <input checked="" type="checkbox"/> Software <input checked="" type="checkbox"/> Hardware <input type="checkbox"/> Telecommunications <input checked="" type="checkbox"/> Professional Services	
SUMMARY: Department Executive Sponsor: Mitchell H. Katz, M.D., Director Description: Authorize the Internal Services Department (ISD), as the County's Purchasing Agent, to proceed with the purchase of hardware, software, and professional services, with a total cost of \$3,209,924. <div style="display: flex; justify-content: space-between;"><div>Amount: \$1,295,750</div><div>Funding: DHS FY 2013-14 Operating Budget</div></div> <div style="display: flex; justify-content: space-between;"><div>Amount: \$1,914,174</div><div>Funding: DHS FY 2014-15 Proposed Budget</div></div> <div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> Legislative or Regulatory Mandate</div><div><input type="checkbox"/> Subvened/Grant Funded: Enter %</div></div>	

Strategic and Business Analysis	PROJECT GOALS AND OBJECTIVES: The acquisition of hardware, software, and professional services for the Fuji Radiology Picture Archiving and Communication System (PACS) Consolidation Project will replace the end-of-life Fuji PACS hardware currently being used throughout the DHS facilities. This hardware and software purchase will centralize and build redundancy of the Fuji Radiology PACS between the LAC+USC Medical Center (LAC+USC MC) and Martin Luther King, Jr. Multi-Service Ambulatory Care Center (MLK MACC) Data Center and support the County's virtualization efforts.
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BUSINESS DRIVERS:

The Consolidation Project will migrate the current six separate Fuji Synapse PACS systems into an enterprise solution for DHS in a virtual environment with failover capabilities between the LAC+USC MC Data Center and the MLK MACC Data Center;

The key business drivers for the Consolidation Project are to:

- Replace existing end-of-life hardware throughout DHS' facilities;
- Support DHS' current and future image/data growth;
- Allow for flexible hardware expansion as DHS' needs increase because of the virtual environment;
- Provide clinicians the ability to view images anywhere, anytime, and anyplace; and
- Interface with DHS' ORCHID EHR

PROJECT ORGANIZATION:

Steven Saunders, Associate Chief, Information Systems, is the DHS IT Project Executive Sponsor. Laurie Martinez is the DHS IT Project Director and Reggie McElroy is the PACS Section Manager.

PERFORMANCE METRICS:

The PACS consolidation, with failover capabilities between the LAC+USC MC Data Center and the MLK MACC Data Center, will provide a much better uptime (99.99% uptime guarantee provided by the vendor).

STRATEGIC AND BUSINESS ALIGNMENT:

This request supports Goal 3, Operational Effectiveness, of the County's Strategic Plan.

PROJECT APPROACH:

The vendor will perform all required installation and configuration services. Reggie McElroy, PACS Section Manager, will provide the appropriate Project planning and guidance.

The primary objective is to centralize/consolidate the six separate PACS Systems at DHS' facilities into a single enterprise PACS Database System with built in redundancy. Implementation will follow the projected timelines for converting the six sites, as part of DHS's ORCHID project.

Implementation approach:

Implementation is scheduled to be done in four phases over a mutually agreed upon time table, which will complement the ORCHID EHR rollout and support replacement of end-of-life hardware, as follows:

Phase I

H/UCLA MC and MLK MACC

Phase II

LAC+USC MC and HD MACC

Phase III

RLANRC

Phase IV

OV/UCLA MC

Fuji will:

- Provide a turnkey solution including hardware, software and primary/secondary storage required at both Data Centers while utilizing existing Synapse database licenses currently in place at each facility combining them into one; and
- Provide the necessary professional services and support to combine and implement the system from multiple systems into one, including providing full maintenance and support services of the Fuji provided turnkey VM solution.


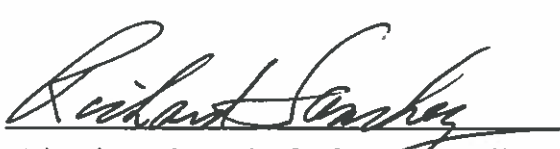
DHS will:

- Provide the required bandwidth requirements and establish connectivity to sites;
- Provide other third-party interfaces (3D imaging); and
- Provide interface, system, network, other IT and radiology resources as needed.

ALTERNATIVES ANALYZED:

DHS' ORCHID EHR system does not have a PACS for Radiology operations/processes and image/patient database storage. DHS has been using Fuji PACS since 2000 at LAC+USC MC. DHS purchased additional Fuji PACS systems for the remaining DHS hospitals (OV/UCLA, H/UCLA, RLANRC, MLK MACC and HD MACC) in 2005. These Fuji PACS systems are at end-of-life and are going off maintenance. Since the Fuji Radiology PACS application will not change, additional costs relating to data conversion are not applicable.

Technical Analysis	<p>ANALYSIS OF PROPOSED IT SOLUTION:</p> <p>The DHS Fuji Radiology PACS is a standard, enterprise wide turnkey comprehensive Radiology solution. This consolidation project will centralize and build redundancy for the DHS Fuji Radiology PACS between the LAC+USC MC and MLK MACC Data Centers. It will eliminate existing points of failure throughout DHS. The new Fuji PACS Consolidated System will be more energy and hardware efficient because of the virtual environment in which this System will be configured.</p> <p><u>Application and hardware stack:</u></p> <p>The new Fuji PACS Consolidated System will be implemented with existing Synapse software licenses purchased in 2005. The Synapse client is a web-based client software. The Synapse Operating System (OS) is on a Microsoft Windows Server platform. The Synapse System uses a Fuji proprietary custom Oracle database.</p> <p>The new Fuji PACS Consolidated System included the following Software and Operating System (OS) stack;</p> <ul style="list-style-type: none">- Synapse PACS Desktop Clinical Interface- Synapse PACS Web-Link- Oracle Enterprise,- VMware ESX Enterprise- Microsoft Windows Server 2008- Microsoft SQL Server 2008 <p><u>Interface:</u></p> <p>Data from ORCHID will be interfaced to PACS, following which ORCHID patient information will be matched with the patient's PACS images and Radiology diagnostic reports/clinical notes. The new DHS ORCHID EHR System has a Radiology Information System (RIS). However, it does not have a Picture Archiving Communication System (PACS) for Radiology operations/processes and image/patient database storage.</p>
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Financial Analysis	<p>BUDGET:</p> <p>One-time costs (including sales tax):</p> <p>Hardware and software..... \$1,934,696</p> <p>Professional Services (implementation) 491,350</p> <p style="text-align: right;">SUBTOTAL..... \$2,426,046</p> <p>Related Hardware and Professional Services</p> <p>Diagnostic monitors..... \$ 698,812</p> <p>Clinical Monitors 28,398</p> <p>Downtime server Rancho Los Amigos 36,668</p> <p>Professional Services (Training) 20,000</p> <p style="text-align: right;">SUBTOTAL \$ 783,878</p> <p>Total one-time costs: \$3,209,924</p> <p>Yearly maintenance cost: \$135,000</p>
Risk Analysis	<p>RISK MITIGATION:</p> <p>IT Security or privacy related issues were not identified by the Chief Information Security Officer (CISO).</p>
CIO Approval	<p>PREPARED BY:</p> <p> <u>1-23-2014</u></p> <p>Sanmay Mukhopadhyay, Sr. Associate CIO Date</p> <hr/> <p>APPROVED:</p> <p> <u>1-23-14</u></p> <p>Richard Sanchez, Chief Information Officer Date</p>

Please contact the Office of the CIO (213.253.5600 or info@cio.lacounty.gov) for questions concerning this CIO Analysis. This document is also available online at <http://ciointranet.lacounty.gov/>